Bank Street

Writer

by Glen Clancy

BankStreet

MUSIC

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Introduction

MusicWriter is a powerful tool for four-part musical composition, editing, and instant playback. This easy-to-use program allows the composer (beginner, amateur, or professional) to enter and edit anything from simple melodies to four-part harmonies with complicated rhythmic variations.

MusicWriter handles musical notation the way a fine word processor handles text. Some of its outstanding features include:

- A powerful music editor. Simple keystrokes are used to enter, delete, insert, or copy musical notation.

- Instant playback to hear a work at any point—in progress or completely finished.

- Four separate voices.

- Individual control of voice by volume, articulation, and sound envelope.

- High-resolution graphics for visual feedback—notes light up as they play.

- "Piano-quality" printouts of compositions—all voices or just one voice at a time.

Whether your musical taste runs to Leonard Bernstein or Billy Joel, Bach or Rock, MusicWriter is at your service. It works with you and it's as versatile as you are. You can start at the do-re-mi level by learning the difference between a whole note and a quarter note; or you can plunge right in to create a complex four-part composition. You don't have to be a professional musician or a computer programmer—if you love music, you'll love the Bank Street MusicWriter by Glen Clancy!

USING THIS MANUAL

This manual contains four sections, each appropriate to a different level of musicianship and learning preference:

- **MusicWriter's Functions:** This section explains each of MusicWriter's features. If you know a lot about music, you may want to begin here.
- **Tutorial:** This section takes you step-by-step through most of Music-Writer's major features. You begin by entering the notes of the familiar melody of "On Top of Old Smokey," and finish with a full arrangement containing melody, harmony, and rhythmic variations.
- **Music Fundamentals:** This section is for beginners, to help them get started with the program. Some fundamentals of music—notation, melody, harmony, and rhythm—are briefly explained.
- **Technical Tips:** This section is for advanced users. It offers tips for getting the most out of MusicWriter.

GETTING STARTED

WHAT YOU NEED
1. 48K Atari 800, 800XL, or 1200XL computer
2. Disk drive
3. TV or monitor (preferably color)
4. Dot matrix printer with graphics capability (optional)

LOADING MUSICWRITER INTO YOUR COMPUTER
1. If there is a program cartridge in the computer, remove it.
2. Turn on the TV or monitor. Be sure the volume is turned up in order to hear the music.
3. Turn on the disk drive. Wait for it to stop spinning and the red "busy" light to go out.
4. Hold the MusicWriter disk by its label. Carefully slide the disk, label side up, into the disk drive. Close the disk drive door or latch. (If you have two drives, use drive one.)
5. Turn on the computer. MusicWriter automatically loads and goes to the main menu.

SAMPLE MUSIC
There are several pieces of music saved on side two of the MusicWriter disk as examples of the many kinds of music you can write with MusicWriter. To listen to these samples, take the MusicWriter disk out of the drive and turn it over. Then turn to page 21 in the manual for information about how to play the music.

FORMATTING A DATA DISK

Before you start using MusicWriter, you may want to first format, or prepare, a disk to save your music. MusicWriter DOS is not compatible with Atari DOS, so you must use MusicWriter to format a data disk. For information about how to format a disk, turn to page 22 in this manual.

You may also use side two of the MusicWriter disk to save some music, although space is limited due to the other music already saved there.
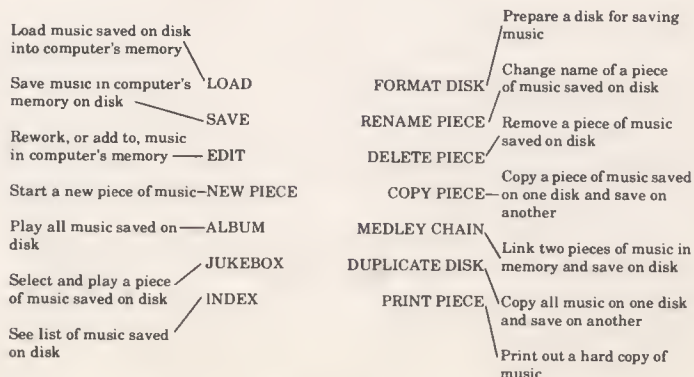
MusicWriter's Functions

This section describes the functions and features of MusicWriter, following the order of the main menu—the first screen after the program loads. First, the basic features that involve entering, editing, and playing back music are explained. Next, this section explains features that add power to the composing process, such as inserting, deleting, or copying musical passages; checking for accuracy of time signature; and varying the dynamics of your music.

MAIN MENU

After the program loads, the first screen displays the main menu. This menu leads to all of MusicWriter's functions. This section of the manual, however, explains only the EDIT and NEW PIECE functions. All other functions are explained in the Disk Management section, beginning on page 19.

To get to the main menu from anywhere in the program, press [ESC]:

Load music saved on disk into computer's memory — LOAD

Save music in computer's memory on disk — SAVE

Rework, or add to, music in computer's memory — EDIT

Start a new piece of music — NEW PIECE

Play all music saved on disk — ALBUM

Select and play a piece of music saved on disk — JUKEBOX

See list of music saved on disk — INDEX

FORMAT DISK — Prepare a disk for saving music

RENAME PIECE — Change name of a piece of music saved on disk

DELETE PIECE — Remove a piece of music saved on disk

COPY PIECE — Copy a piece of music saved on one disk and save on another

MEDLEY CHAIN — Link two pieces of music in memory and save on disk

DUPLICATE DISK — Copy all music on one disk and save on another

PRINT PIECE — Print out a hard copy of music

Use [↑] or [↓] to move the highlighter to the function you want; then press [RETURN] to select it.

NEW PIECE

To begin a new composition, highlight NEW PIECE on the main menu. Press [RETURN] to select it.

Follow the on-screen prompts:

MUSIC MEMORY WILL BE ERASED
OK TO PROCEED? (Y/N)

If you've just loaded the program, no music is in the computer's memory, so you can go ahead and press [Y].

If you're choosing NEW PIECE again after writing some music, and want to keep your work, press [N]. Save your music and then proceed. (See Save on page 20.) If you don't want to keep your work, press [Y] to clear out memory.

Note that erasing memory does not affect any music saved on disk.

Pressing [Y] takes you to the KEY SELECTION screen.

KEY SELECTION SCREEN

Entry: From the main menu, highlight NEW PIECE and press [RETURN]; then press [Y] to answer the prompt.

From the EDIT MODE screen, hold down [CONTROL] and press [K].

Exit: [RETURN] or [ESC] takes you to the EDIT MODE screen.

When you first go to this screen, the key of C is highlighted. If you want C, press [RETURN] to select it. To change the key, press [↑] or [↓] to move the highlighter to the key signature you want; then press [RETURN]. Pressing [RETURN] selects the key and takes you to the EDIT MODE screen.

To change the key in the middle of a piece, press [CONTROL]-[K] from the EDIT MODE screen; this takes you to the KEY SELECTION screen where you can choose another key signature. Be sure the cursor is located where you want the key change to occur, since the new key signature is entered at the cursor.

EDIT MODE SCREEN

This mode is the main part of the MusicWriter program. All other modes (KEY SELECTION, PLAY, SLUR, INSERT, DELETE, COPY, TIME SIGNATURE CHECK, and OPTION) can be entered from here.

Entry: From the main menu, highlight EDIT and press [RETURN].

From the KEY SELECTION screen, press [RETURN].

Exit: [ESC] takes you to the main menu.

Note these things on the EDIT MODE screen:

- Two grand staffs, each with a treble and a bass clef.
- The cursor (❭), located at the top left of the screen. The cursor points to where the next note, rest, bar line, and key signature will be entered on the staffs. Cursor location also controls pitch, key, and staff number.
- The pitch prompt, indicating the current pitch.
- The key signature prompt, indicating the current key.
- The staff prompt, indicating staff number—from 1 to 70.
- The voice prompt, indicating the current voice.

Each of the above is explained more fully later in the manual, as are the remaining two prompts, Octave and Stem.

CURSOR

Cursor location points to where the next note, rest, bar line, or key signature is entered. Cursor location also indicates the current staff.

The cursor is moved with arrow keys:

[↑] = up; [↓] = down; [←] = left; [→] = right

To rapidly move the cursor, press and hold down an arrow key in the direction you want to go.

To move the cursor one full staff, hold down [SHIFT] and press an arrow key:

[SHIFT]-[↑] = Up to the previous staff
[SHIFT]-[↓] = Down to the next staff
[SHIFT]-[←] = Left to the beginning of the staff
[SHIFT]-[→] = Right to the end of the staff

To move the cursor in one step to the first or last staff of music, hold down [CONTROL] and press [↑] or [↓].

PITCH

The prompt at the top of the screen indicates the pitch where the cursor is located. As the cursor moves up and down a staff, the prompt changes accordingly.

To hear the pitch where the cursor is located, press [P].

ENTERING NOTES

Notes are entered where the cursor is pointing, directly from the keyboard:

| Note	Key to Press
Whole note 𝅝	[1]
Half note 𝅗𝅥	[2]
Quarter note ♩	[4]
Eighth note ♪	[8]
Sixteenth note 𝅘𝅥𝅯	[6]
Thirty-second note 𝅘𝅥𝅰	[3]

When you enter a note, the cursor moves over to the right. The distance the cursor moves depends on note value. For example, a whole note moves the cursor over eight steps, and an eighth note moves it over one step. This is to allow room for the same number of beats per measure in different voices; for example, one whole note takes up the same amount of space on the staff as eight eighth notes, four quarter notes, or two half notes. However, you can move the cursor with the arrow keys to put notes as far apart or close together as you want.

To erase a note, point the cursor directly at it and press [Spacebar]. (For more information regarding erasing notes, see Erasing Mistakes on page 9.)

To play notes—no matter how many or few are entered—press [START].

RESTS

To enter a rest, press [R] and then its duration. To enter a quarter-note rest, for example, press [R] and then [4]. Rests appear on the screen as shown below:
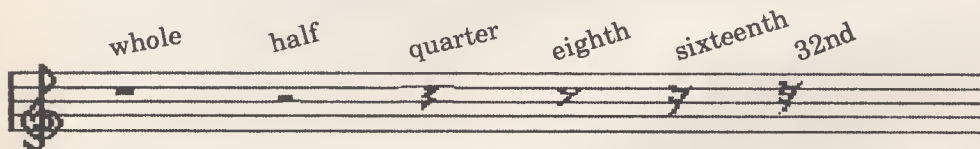
If you change your mind after pressing [R], hold down [CONTROL] and press [CLEAR] to clear the Rest command.

VOICE

MusicWriter offers four voices for composing: soprano, alto, tenor, and bass. The current voice is indicated next to the prompt at the bottom of the screen. To choose a particular voice, press [V] to cycle through all four voices. Stop when the voice you want appears next to the prompt.

When music plays, the notes for each voice light up in a different color: soprano is red; alto is yellow; tenor is green; and bass is blue. The colored notes make it easy to follow each voice. (Adjust your monitor or TV to get these colors, or any colors you want.)

Tracking the current voice: You can also go note-by-note through a composition for each voice. To do this, first press [V] to get the voice you want to track. Then hold down [CONTROL] and press [←] or [→] to move the cursor from note to note.

ERASING MISTAKES

To erase a mistake, point the cursor at the note, rest, or bar line you want to remove and press [Spacebar].

(If you try to erase a note or rest and get an error message, see the next section, Error Messages.)

Replacing notes: To replace a note with another note, both notes must be in the same voice. The cursor must also be pointing directly at the note you want to replace. If both of these conditions are met, just enter the new note. You don't have to first erase the old note.

The old note may remain on the screen—and you may not see the new note—until you press [START] to play the music.

ERROR MESSAGES

There are three kinds of error messages you may get while composing: BAD KEY, ERASE ERROR, and REPLACE ERROR. If you get an error message, just reenter the correct information.

BAD KEY: You get this message if a keypress is not part of the MusicWriter program.

ERASE ERROR: This message indicates that the cursor is not pointing directly at a note in the current voice. If you get this message, either move the cursor to the note in the current voice, or change the current voice by pressing [V].

REPLACE ERROR: You get this message if the following two conditions aren't met when replacing notes or rests: The note or rest you want to replace and the new note or rest you want to enter must be in the current voice; the cursor must point directly at the note or rest you want to replace. If these conditions are met, the new entry is accepted. You don't have to first erase the note or rest before entering the new one.

You also get this message if bar lines, repeats, and other musical markers are entered incorrectly.

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OCTAVE

MusicWriter provides five octaves of music. You can enter any note at the normal pitch, or up an octave. If the prompt at the bottom of the screen says Octave: As-is, notes are entered at the normal pitch. To enter notes up an octave, press [O]. The position of the notes remains unchanged on the staff, but the pitch of the notes you enter goes up an octave.

To restore normal pitch, press [O] again.

ACCIDENTALS

To enter accidentals, hold down [SHIFT] and press [#] for sharps, press [F] for flats, and [N] for naturals before you enter the note. To enter a flatted quarter note, for example, press [F] and then [4]. The prompt at the bottom of the screen indicates that the next note entered will be an accidental.

Pitch changed by an accidental remains that way until the next bar line. For instance, if you change an F-sharp to F-natural, all notes entered at F will be naturals until the next bar line, or until the original pitch is restored. To restore the original pitch in the same measure, use another accidental. For example, if you pressed [N] to change a B-flat to B-natural, return to B-flat by pressing [F] and entering a note.

STEM

Generally, MusicWriter enters notes in the soprano and tenor voices with stems up, and notes in the alto and bass voices with stems down. You can change stem direction individually by voice by pressing [S]. Pressing [S] only changes notes you're about to enter; it doesn't change stem direction of notes already on the screen. Stem direction stays the same until you press [S] again. The prompt at the bottom of the screen indicates stem direction.

Stem direction is generally a matter of personal preference. However, it's a good idea to plan stem direction so that the score is uncluttered and easy to read.

DOTTED NOTES

To enter a dotted note, enter the dot first and then the note. To enter a dotted quarter note, for instance, press [·] and then [4]. The prompt at the bottom of the screen indicates that the next note entered will be dotted.

If you change your mind after pressing [·], hold down [CONTROL] and press [CLEAR] to clear the Dot command.

TIES

To enter a tied note, enter the tie first and then the note. To enter a tied quarter note, for example, press [/] and then [4]. The prompt at the bottom of the screen indicates that the next note entered will be tied to the note following it.

When a tied note is entered, a little "tail" appears on the note. If the note following the tied note is at the same pitch, a bar connects the two notes. If the following note is at a different pitch, the tail remains on the tied note.

Tied notes of different pitches are slurs. If you want to enter a long section of slurred notes, use the SLUR MODE screen (see page 12).

If you change your mind after pressing [/], hold down [CONTROL] and press [CLEAR] to clear the Tie command.

TRIPLETS

To enter a triplet, press [T] before each note. A small "3" appears above each triplet note to indicate the note is two-thirds of its normal value. The prompt Triplet at the bottom of the screen indicates that the next note entered will be a triplet.

BAR LINES

To mark the end of a measure with a bar line, press [B]. Bar lines keep the voices together when the music plays. For example, if you've put four beats for the bass voice in a measure, and only two beats in the same measure for the tenor voice, a bar line keeps the tenor voice from going on until the bass voice finishes all four beats.

To erase a bar line, point the cursor at it and press [Spacebar].

REPEATS

To repeat music without reentering it, move the cursor to the beginning of the passage to be repeated; hold down [SHIFT] and press [(]. Then move the cursor to the end of the passage; hold down [SHIFT] and press [)].

When the music reaches the end (or close) repeat, it goes back to the beginning (or open) repeat and replays once. The next time the close repeat is reached, the music crosses it and goes on.

MusicWriter provides up to 16 levels of repeats, and they may be nested inside each other.

ENDINGS

To indicate a first ending, hold down [SHIFT] and press [[] before you enter a phrase. To indicate a second ending, hold down [SHIFT] and press []] before the phrase.

DYNAMICS

Dynamics tell MusicWriter to raise or lower the volume of music when it's playing. To raise volume *(forte)*, hold down [SHIFT] and press [<]. To lower volume *(piano)*, hold down [SHIFT] and press [>]. A little *f* or *p* appears where the cursor is located when you press [<] or [>].

TURNING OFF VOICE

To turn off both the sound and the graphics of the current voice, hold down [CONTROL] and press [A]. This is helpful if you want to see and hear a particular voice or combination of voices. Just turn off the voice(s) you don't want. For example, to turn off the tenor voice, press [V] to get the tenor voice; then hold down [CONTROL] and press [A]. To restore a voice you turned off, press [CONTROL]-[A] again. One or more voices can be turned off at a time.

Note: When the current voice is turned off, you can't enter or change music in that voice.

PLAY MODE SCREEN

Entry: From EDIT MODE screen, press [START].
Exit: When music ends, MusicWriter automatically returns to EDIT MODE screen. Press [ESC] to stop music.

You can play back your music any time—no matter how many or few notes are entered.

To change tempo as the music plays, press [F] to make it go faster and [S] to slow it down. The tempo changes at the next bar line after you press [F] or [S].

To play only at the staff where the cursor is located, press [START] and [SELECT] simultaneously.

SLUR MODE SCREEN

Entry: From EDIT MODE screen, hold down [CONTROL] and press [S].
Exit: Press [ESC].

Use this screen when you want to enter slurred notes without having to enter a tie [/] before each note. Each note is automatically tied to the following note.

INSERT MODE SCREEN

Entry: From EDIT MODE screen, hold down [CONTROL] and press [INSERT].
Exit: Press [ESC].

Use this screen to insert anything from a note to a full staff of music anywhere in your composition.

To insert music:
1. Move the cursor to where you want to insert new music.
2. Hold down [CONTROL] and press [INSERT]. This inserts a clean staff at the cursor.
3. Enter the music.
4. Press [ESC]. Any leftover space is eliminated.

DELETE MODE SCREEN

Entry: From EDIT MODE screen, hold down [CONTROL] and press [DELETE].
Exit: MusicWriter automatically returns to the EDIT MODE screen when deleting is finished. Press [ESC] to exit without deleting.

Use this screen to delete music in all voices, without having to erase note by note.

To delete music:
1. Hold down [CONTROL] and press [DELETE].
2. Follow the prompts at the bottom of the screen:

   Set cursor to START of DELETE
   Press S

   Set cursor to END of DELETE
   Press E

The passage is deleted and you return to the EDIT MODE screen.

COPY MODE SCREEN

Entry: From EDIT MODE screen, hold down [CONTROL] and press [C].
Exit: MusicWriter automatically returns to the EDIT MODE screen when copying is finished. Press [ESC] to exit without copying.

Use this screen to copy or transpose music (notes and rests only) without having to reenter it.

You can copy music in three ways:

WITHIN-VOICE: Copies music from one location to another, in the same voice.

VOICE-TO-VOICE: Copies music from one location to another, from one voice to another voice.

ALL-VOICES: Copies music from one location to another, in all voices.

To copy music:
1. Hold down [CONTROL] and press [C].
2. Follow the prompts at the bottom of the screen:

     WITHIN-VOICE   VOICE-TO-VOICE   ALL-VOICES

Use [←] or [→] to highlight the type of copy; press [RETURN].

If you choose WITHIN-VOICE, follow the on-screen prompts:

Set cursor to START of COPY
Press S

Set cursor to END of COPY
Press E

Set cursor to DESTINATION of COPY
Press D

Move the cursor to where you want the copied music to go; press [D] to complete the copy and return to the EDIT MODE screen.

If you choose VOICE-TO-VOICE, follow the on-screen prompts:

SOPRANO   ALTO   TENOR   BASS
Choose VOICE to COPY from

Use [←] or [→] to highlight the voice you're copying; press [RETURN].

Set cursor to START of COPY
Press S

Set cursor to END of COPY
Press E

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SOPRANO   ALTO   TENOR   BASS
Choose VOICE to COPY from

Use [←] or [→] to highlight the new voice you want; press [RETURN].

Set cursor to DESTINATION of COPY
Press D

Move the cursor to where you want the copied music to go; press [D] to complete the copy and return to the EDIT MODE screen.

If you choose ALL-VOICES, follow the on-screen prompts:

Set cursor to START of COPY
Press S

Set cursor to END of COPY
Press E

Set cursor to DESTINATION of COPY
Press D

Move the cursor to where you want the copied music to go; press [D] to complete the copy and return to the EDIT MODE screen.

Some copy tips:
- You can replace staffs of music without first having to erase the old music. To do this, move the cursor to where you want the copied music to go and press [D]. The new music replaces the old.
- You can delete music by copying an empty staff over a staff with music.
- You can transpose music. When selecting the destination of the copied music, move the cursor to the pitch where you want the music to begin, and press [D].
- Stem direction is entered in the direction indicated by the stem prompt. To change stem direction before copying, press [S].

TIME SIGNATURE CHECK SCREEN

Entry: From EDIT MODE screen, hold down [CONTROL] and press [T].
Exit: MusicWriter automatically returns to the EDIT MODE screen if number of beats per measure is accurate. Press [ESC] to exit without checking.

When you're finished composing your music, MusicWriter can check for accuracy of number of beats per measure in your music. For example, if you've composed a waltz in 3/4 time and accidentally put an extra beat in one of the measures, the time signature check points out the error. You can then edit your music, or leave the extra beat if you wish.

To check accuracy of beats per measure, use the time signature check. Side one of the MusicWriter disk must be in the disk drive. When you first go to the TIME SIGNATURE CHECK screen, 2/2 time is highlighted. Press [RETURN] if you want your music checked for that time signature. If you want your music checked for another time signature, use [↑] and [↓] to highlight the one you want and press [RETURN].

The time signature check begins from the location of the cursor, so place the cursor where you want the check to start. If the time signature check finds an error, the cursor stops at the bar line at the end of that measure, and on-screen prompts tell you:

- Which staff contains the error.
- Whether the measure has too few or too many beats, and in which voice.

You can then use [↑] and [↓] to highlight what you want to do next:

EDIT MUSIC: This choice returns you to the EDIT MODE screen, where you can edit your music to change the number of beats in that measure.

CONTINUE TIME CHECK: Choose this if you want to leave the measure as is and go on with the time check. The time signature check continues until it either finds another error or, if no further errors are found, returns you to the EDIT MODE screen.

NEW TIME SIGNATURE: Choose this step if you wish to change the time signature you're using to check your music.

Some TIME SIGNATURE CHECK tips:

- The measures are checked by voice, starting with soprano. The time signature check stops at the first measure that has a voice with the wrong number of beats.
- If at least one voice has the correct number of beats in the measure, and the other voices have too few, the time signature check doesn't count that as an error. It assumes that the other voices have rests, even though they aren't specifically programmed in the score.
- A totally empty measure isn't counted as an error. It's acceptable if all the voices are resting, or have stopped.

Note: When you're finished using the TIME SIGNATURE CHECK, be sure the MusicWriter disk—rather than a data disk with music saved on it—is in the disk drive, or PLAY MODE and PRINT won't work.

OPTION MODE SCREEN

Entry: From EDIT MODE screen, press [OPTION].
Exit: Press [ESC].

This screen provides options for varying your music to create exciting and unusual interpretations and arrangements. You can also vary play staffs and scrolling. The options are: TEMPO, TONE-SHAPE, PLAY-STAFFS, and SCROLL-TYPE.

TEMPO

This option lets you vary tempo in your music. Use [↑] or [↓] to highlight TEMPO on the OPTION MODE screen; press [RETURN].

The graph on the screen shows the tempo range. Use [<] and [>] to move the cursor and change tempo. When you've selected the tempo you want, press [RETURN].

TONE-SHAPE

This option lets you adjust the quality of sound for each voice. Use [↑] or [↓] to highlight TONE-SHAPE on the OPTION MODE screen; press [RETURN].

MusicWriter offers six tone-shaping options: VOLUME, ARTICULATION, PEAK, ATTACK, DECAY, and RELEASE. These make up the sound envelope—or the entire nature of the sound—of each note.

Every note starts from silence and builds to maximum volume. Volume then decays to a sustained (midpoint) volume, where it stays until just before sound returns to silence. Instruments go through this process naturally; a computer is programmed to go through it with split-second timing.

Each of MusicWriter's six tone-shaping options lets you alter different aspects of the sound envelope for each voice. Unless you change them, the sound envelopes for all four voices in this program are the same and look like this:
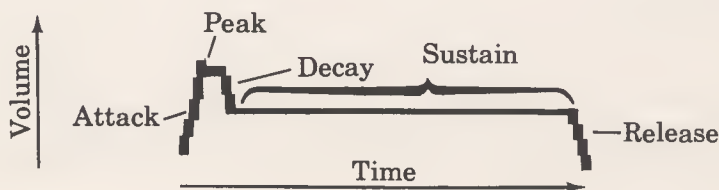
To change a sound envelope, first press [V] to select the voice you want. Next use [←] or [→] to highlight the option (VOLUME, ARTICULATION, PEAK, ATTACK, DECAY, and RELEASE) you want to change. Then use [<] and [>] to alter that option.

If you've changed the sound envelope of a voice and want to restore its original values, press [R] to reset the voice.

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VOLUME controls the volume level for each voice. Each voice can be made more or less dominant, depending on the quality of the music you want.

ARTICULATION controls the duration of sound for each note. If the articulation line is short, notes are *staccato* (short and choppy); if the line is longer, notes are more *legato* (smooth).

PEAK controls the maximum volume a note can reach. Although overall volume is controlled for each voice with **VOLUME**, you can adjust **PEAK** for a slightly louder point that each note can reach.

ATTACK controls the time it takes for each note to reach peak volume. If the attack line is vertical, peak volume is reached quickly; if the line is more oblique, the peak is reached more slowly.

DECAY controls the time a note takes to go from peak volume to sustained volume. If the decay line is vertical, the descent is fast; if the line is oblique, the descent is slower.

RELEASE controls the time a note takes to go from the sustained volume down to silence. If the release line is vertical, notes end more abruptly; if the line is oblique, sound tapers off more slowly.

When you finish adjusting the sound envelopes, press [ESC].

The best way to hear how MusicWriter's tone-shaping options affect your music is to enter some short passages in at least two voices. Vary the sound envelope for each voice in different ways and listen to the results. By experimenting with tone-shaping, you'll be able to adjust the options to serve your creative needs.

PLAY-STAFFS

Use [↑] or [↓] to highlight PLAY-STAFFS on the OPTION MODE screen; press [RETURN].

START PLAYING controls at which staff music begins playing. To change a staff number, move the highlighter over the old number and type the new number. There's no need to first erase the old number.

STOP PLAYING controls at which staff music stops playing. To change a staff number, move the highlighter over the old number and type the new number.

TOTAL STAFFS indicates the total number of staffs with music in the computer's memory. In general, the only reason to change this number is to save or print a shorter version of the piece in the computer's memory.

When you finish setting PLAY-STAFF choices, press [RETURN]. To leave this screen without changing settings, press [ESC].

SCROLL-TYPE

Use [↑] or [↓] to highlight SCROLL-TYPE on the OPTION MODE screen; press [RETURN].

You can choose whether the whole screen changes at once, or only half the screen changes at a time:

FULL: Music scrolls two grand staffs—one full screen—at a time.

HALF: The top staff scrolls off the screen when the bottom staff finishes playing. The bottom staff moves to the top and another staff scrolls in at the bottom.

Disk Management

Except for EDIT and NEW PIECE, all functions listed on the main menu relate to disk management. This section explains those disk management functions that let you format disks; copy, delete rename, or print out your music; and play your music in jukebox, album, or medley style.

LOAD

This function lets you load music saved on a disk into the computer's memory. From the main menu, use [↑] or [↓] to highlight LOAD. Press [RETURN] to select it and go to the DISK INDEX screen.

Follow the on-screen prompts:

ENTER SELECTION: '   '

Each piece saved on disk has two titles—the name you give it, and the code name given by the computer. Enter the code name (a letter and a number) of the piece you want to load.

READY TO LOAD   (name of piece)
OK TO PROCEED?   (Y/N)

Press [Y] to load the music into the computer's memory and go to the EDIT MODE screen. You can then edit the music, play it by pressing [START], —or both.

Press [N] to load another selection. To go back to the main menu without loading a piece, press [ESC].

SAVE

This function lets you save a new piece for the first time, or resave a piece already saved on the disk that you changed in some way. In order to save your music, you must have a disk formatted by the MusicWriter program in the disk drive. (See Format Disk on page 22.) Or you can save music on side two of the MusicWriter disk.

1st time save: From the main menu, use [↑] or [↓] to highlight SAVE. Press [RETURN] to select it.

Follow the on-screen prompts:

ENTER TITLE, RETURN '   '

Type the name of the piece you're saving and press [RETURN]. The music is saved when the disk drive's red "busy" light goes out and the CHOOSE OPTION message comes back on the screen. The title is also listed on the DISK INDEX.

Resave: From the main menu, use [↑] or [↓] to highlight SAVE. Press [RETURN] to select it.

Follow the on-screen prompts:

READY TO RESAVE   (name of piece)
OK TO PROCEED?   (Y/N)

Press [Y] to resave your music. The music is resaved when the disk drive's red "busy" light goes out and the CHOOSE OPTION message comes back on the screen.

Pressing [N] gives you the 1ST TIME SAVE option. To go back to the main menu without saving or resaving, press [ESC].

Note: If you intend to save your music onto another disk, press [N] to get the 1ST TIME SAVE option. This prevents using the same code name twice and replacing one piece of music with another.

ALBUM

Choose this function to play all music saved on the disk. From the main menu, use [↑] or [↓] to highlight ALBUM. Press [RETURN] to select it.

Follow the on-screen prompts:

READY TO PLAY ENTIRE DISK
OK TO PROCEED?   (Y/N)

Pressing [Y] takes you to the PLAY MODE screen. All the music saved on the disk begins playing automatically, starting with the first title listed on the disk index.

To stop playing the current piece and go on to the next one, press [RETURN]. To stop the music and go back to the main menu, press [ESC].

JUKEBOX

This function lets you play any selection saved on the disk. From the main menu, use [↑] or [↓] to highlight JUKEBOX. Press [RETURN] to select it and go to the disk index.

Follow the on-screen prompts:

ENTER SELECTION: '   '

Enter the code name of the selection you want to play.

READY TO PLAY   (name of title)
OK TO PROCEED?   (Y/N)

Pressing [Y] takes you to the PLAY MODE screen; the music begins playing automatically.

Press [N] to choose another selection to play. To go back to the main menu without choosing a selection, press [ESC].

DISK INDEX

This function lists the titles and code names of all music saved on the disk, as well as indicating how much space is left on the disk for saving music. If there isn't much room, it's a good idea to format another disk before going on. (See Format Disk.)

From the main menu, use [↑] or [↓] to highlight DISK INDEX. Press [RETURN] to select it.

Seventy titles can fit on the index, although only 30 titles can be displayed at one time. A screen message tells you if there are more than 30 titles. Press [Y] to see the rest of the titles.

When there are no more titles listed, any keypress returns you to the main menu.

FORMAT DISK

Use this function to prepare disks for saving your music. MusicWriter DOS is not compatible with Atari DOS, so you must use MusicWriter to format disks to save music. If you try to save music on a disk not formatted by MusicWriter, you could lose your music and also ruin information on that disk.

Warning: Formatting erases everything saved on a disk, so be sure to format a new disk or one with nothing on it you want to keep.

From the main menu, use [↑] or [↓] to highlight FORMAT DISK. Press [RETURN] to select it.

Follow the on-screen prompts:

PUT NEW DISK IN DRIVE
OK TO PROCEED?　　(Y/N)

Make sure the disk you want to format is in the drive. When you press [Y], formatting begins immediately. Formatting is finished when the disk drive's red "busy" light goes out and the CHOOSE OPTION message comes back on the screen.

To go back to the main menu without formatting, press [N].

RENAME PIECE

Choose this function to rename a piece of music saved on the disk. From the main menu, use [↑] or [↑] to highlight RENAME PIECE. Press [RETURN] to select it.

Follow the on-screen prompts:

ENTER SELECTION: '   '

Enter the code name of the piece you want to rename.

TYPE NEW NAME, RETURN   '   '

Type the new name—up to eight characters—and press [RETURN].

READY TO RENAME   (name of selection)
            TO   (new name)
OK TO PROCEED?   (Y/N)

Press [Y] to rename the piece; the new name is listed on the DISK INDEX.

Press [N] to choose another selection to rename. To go back to the main menu without renaming, press [ESC].

DELETE PIECE

This function lets you delete music saved on the disk. From the main menu, use [↑] or [↓] to highlight DELETE PIECE. Press [RETURN] to select it and go to the DISK INDEX screen.

Follow the on-screen prompts:

ENTER SELECTION: '   '

Enter the code name of the piece you want to delete from the disk.

READY TO DELETE   (name of piece)
OK TO PROCEED?   (Y/N)

Press [Y] to remove the piece from the disk and the disk index.

Press [N] to choose another selection to delete. To go back to the main menu without deleting, press [ESC].

COPY PIECE

This function lets you copy music saved on one disk onto another disk. From the main menu, use [↑] or [↓] to highlight COPY PIECE. Press [RETURN] to select it and go to the DISK INDEX screen.

Follow the on-screen prompts:

INSERT SOURCE DISK
OK TO PROCEED? (Y/N)

Make sure the disk with the music you want to copy is in the disk drive. Press [Y] to go to the DISK INDEX screen. To go back to the main menu, press [N].

ENTER SELECTION: '   '

Enter the code name of the music you want to copy.

READY TO COPY   (name of selection)
OK TO PROCEED? (Y/N)

Press [Y] to load the music into the computer's memory. To choose another piece to copy, press [N].

INSERT DESTINATION DISK
OK TO PROCEED? (Y/N)

Take the source disk out of the disk drive and put in the disk you want to save the music on. Be sure the disk is first formatted with MusicWriter. (See Format Disk on page 22.)

Press [Y] to copy the music onto the disk. Copying is finished when the disk drive's red "busy" light goes out and the main menu comes back on the screen.

To go back to the main menu without copying, press [N].

MEDLEY CHAIN

Choose this function to link together two or more pieces of music. You must already have the first piece in the computer's memory. This can be a new piece, or one loaded using the LOAD function. To link another piece to the one in memory, from the main menu, use [↑] or [↓] to highlight MEDLEY CHAIN. Press [RETURN] to select it and go to the DISK INDEX screen.

Follow the on-screen prompts:

ENTER SELECTION: '   '

Enter the code name of the first piece of music you want to link to the music in memory.

READY TO LOAD   (name of piece)
OK TO PROCEED?   (Y/N)

Press [Y] to load the music into the computer's memory and go back to the main menu, where you can choose MEDLEY CHAIN again, load in another piece of music, and link it with the piece previously loaded. Press [N] to choose another selection to load.

You can go to the EDIT MODE screen (see page 6) to see the pieces linked together; you can also hear the combined pieces by pressing [START]. There may be some empty staffs between the pieces. If you wish, you can use the DELETE MODE screen (see page 13) to remove the empty staffs and close up the gap.

You can now rename and save these linked pieces as one composition using MusicWriter's SAVE function (see page 20).

DUPLICATE DISK

Use this function to copy an entire disk. From the main menu, use [↑] and [↓] to highlight DUPLICATE DISK. Press [RETURN] to select it.

Follow the on-screen prompts:

DUPLICATING WILL ERASE MEMORY
OK TO PROCEED?   (Y/N)

This prompt means that while you're duplicating a disk, the MusicWriter program is cleared from the computer's memory. Press [Y] to go on. Press [N] or [ESC] to go back to the main menu.

INSERT SOURCE DISK
OK TO PROCEED?   (Y/N)

Insert the disk you're copying into the disk drive and press [Y] when you're ready to begin. Press [N] or [ESC] to go back to the main menu.

The screen message, READING FROM DISK, means that the computer is loading information from the disk you're copying into the computer.

INSERT DESTINATION DISK
OK TO PROCEED?   (Y/N)

Take the source disk out of the drive and put in the disk you want the information copied onto. Press [Y] to copy the information onto the disk.

If you press [N], you won't go back to the main menu. Nothing happens until you either press [Y] to copy information onto the disk, or press [ESC] to exit the duplication program. If you press [ESC], duplication is stopped and you get the screen message, COPY INCOMPLETE. You must reboot the system by turning the computer off, then on again.

When you press [Y], the screen message says WRITING TO DISK; this means that the computer is putting the information in memory onto the destination disk.

Because of limits in the computer's memory, you must repeat the process of copying from the source disk to the destination disk several times in order to make a complete copy.

When duplicating is done, the screen message says, REBOOT SYSTEM. To do this, insert the MusicWriter disk into the disk drive, and turn the computer off and then on again.

PRINT PIECE

This function allows you to print out your music on paper. In order to print out music, it must first be in the computer's memory. You can either load a piece of music from disk (see Load on page 19), or print out what you've just entered. It's a good idea, however, to first save your music on disk (see Save on page 20) before printing.

Side one of the MusicWriter disk must be in the disk drive. From the main menu, use [↑] or [↓] to highlight PRINT PIECE; press [RETURN] to select it.

Follow the on-screen prompts:

ENTER TITLE, RETURN   '   '

Type in the name you want printed at the top of the paper.

READY TO PRINT   (name of piece)
OK TO PROCEED? (Y/N)

Press [N] to type another title. Press [Y] to continue printing.

BE SURE: 1. PRINTER IS ON
                    2. PROGRAM DISK IS IN DRIVE
OK TO PROCEED? (Y/N)
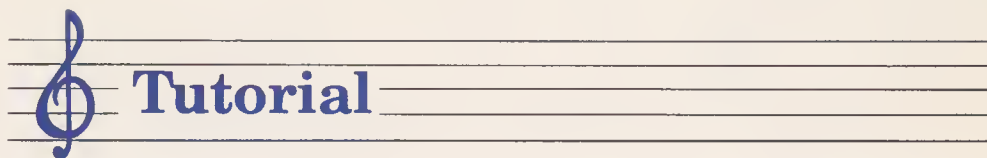
Press [N] to cancel the print function and go back to the main menu. Press [Y] to choose a printer from the ones listed on the computer screen. Use [↑] or [↓] to move the highlighter to the printer you want; press [RETURN] to select it. Printing begins immediately after you press [RETURN].

To stop printing, press [ESC]. The line the printer is on finishes printing and then the printer stops.

If you want to print out only one voice at a time, hold down [CONTROL] and press [A] to turn off the other voices before printing.

Note: When you're finished using the PRINT PIECE function, be sure the MusicWriter disk—rather than a data disk with music saved on it—is in the disk drive, or PLAY MODE and TIME SIGNATURE CHECK won't work.

Tutorial

This Tutorial takes you through MusicWriter's main functions—starting with a simple, familiar melody and building to a four-part arrangement. The Tutorial progresses from simple tasks, such as entering notes and changing voices, to more complex functions such as adding rhythm and harmony, and changing tempo. You will add one feature at a time, making it easy to master MusicWriter's functions in an orderly way. It's important that you follow the tutorial instructions exactly so that your composition is accurate and your music sounds right.

If you wish, you can hear a preview of the piece you'll compose while going through the Tutorial:

- From the main menu, use [↑] or [↓] to highlight JUKEBOX; press [RETURN] to select it.
- This takes you to the DISK INDEX screen, where the songs saved on the disk are listed. Press [A][4] to select SMOKEY. Press [Y] to answer the prompt: OK TO PROCEED?
- When the song is finished playing, you will go back to the main menu screen.

If you want the results of your composition to be a surprise, start right away with the Tutorial.

FROM THE MAIN MENU

Press [↓] to highlight NEW PIECE. This is where you start a new piece of music. When it is highlighted, press [RETURN] to select it.

The prompt stating MUSIC MEMORY WILL BE ERASED is a warning that any music currently in the computer's memory will be erased if you proceed. Don't worry if you just loaded SMOKEY to listen to it. Songs saved on the disk are not affected.

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SAVING YOUR WORK

As you go through the Tutorial, you may want to save your work, and then come back again to where you left off. Or, if you go through the entire Tutorial at one time, you'll probably want to save your finished work.

To save music on disk: You must first have a formatted disk. To format a disk, see page 22 in this manual. When you're ready to save your work in progress, or your finished music, turn to page 20 in this manual for instructions on how to save music on a disk.

SELECTING A KEY SIGNATURE

After selecting NEW PIECE, you go to the KEY SELECTION screen. The first task in composing music is usually selecting the key signature.

Our arangement of SMOKEY is in the key of F (1♭). Use [↑] or [↓] to highlight F (1♭) on the screen. Press [RETURN] to select it.

EDIT MODE SCREEN

After selecting a key, you go to the EDIT MODE screen. This screen is the central part of the program. All other musical functions are entered from this screen.

There are several features shown on this screen, but for now, note the following:

Grand staffs: There are two grand staffs on the screen, each with a treble and a bass clef. The music is entered on these.

Cursor: The cursor—in the upper left of the screen—shows where a note, rest, or bar line will be entered. The cursor also shows which staff you're on. You move the cursor with the arrow keys [↑], [↓], [←], [→].

Pitch: The letter name of the pitch (sound) of any note is indicated next to the word Pitch at the top of the screen. As the cursor moves up and down the staffs, the pitch indication changes to reflect the cursor's position. Any time you want to hear the pitch shown by the cursor, press [P].

Voice: MusicWriter offers four voices for composing music: soprano, alto, tenor, and bass. You select a voice by pressing [V].

ENTERING THE MELODY

Let's begin the arrangement by entering the melody, using the soprano voice. If Soprano is not already next to voice at the bottom of the screen, press [V] until it is.

Press [↓] to move the cursor down to the pitch of C as shown below:

Staff #1

Press [4] to enter a quarter note.

When you enter a note, you see it on the screen as well as hear it. Notice that the cursor moved to the right as you entered the quarter note. Each note value moves the cursor a different distance. For example, a whole note moves the cursor farther than a quarter note.

Erasing mistakes: If you make a mistake, use the arrow keys to point the cursor directly at the wrong note and press [Spacebar] to erase it. Then enter the note you want.

BAR LINES

Bar lines mark the end of a measure. Depending on the time signature, each measure has a different number of beats. This arrangement of "On Top of Old Smokey" is written in 3/4 time. This means that each measure contains three beats, and a quarter note—or its equivalent—gets one beat.

STAFF #1

Intro phrase   So far, you've entered only one note of the song, which is a "pick-up." Although a pick-up isn't a full measure, you must enter a bar line so that only three beats will be in the next measure.

Enter a bar line by pressing [B]. Notice that the bar line crosses both the treble and bass staffs; this ensures that all voices keep three beats to a measure.

Still at C, press [4] to enter another quarter note. Press [↑] twice to move the cursor to the pitch of E; press [4] to enter a quarter note. Press [↑] twice more to move the cursor to the pitch of G; press [4].

Now press [B] for another bar line to mark the end of a measure.

Your composition so far:

Staff #1

Intro phrase

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Play back your music: To play back your music and listen to what you've done so far, press [START]. Notice that each note lights up as it plays. When composing, you can press [START] any time you wish to listen to your work in progress.

DOTTED NOTES

A dot beside a note extends the note's duration by half its value. For example, a half note gets two beats. Adding a dot increases the value of the half note from two beats to three beats.

STAFF #1

Measure 1   Use [→] to move the cursor across the last bar line of the Intro phrase. Press [↑] three times to move the cursor up to the pitch of C. Then press [·] to tell the computer to make the next note dotted. (The word Dot at the bottom of the screen tells you the next note will be dotted.) Now press [2] to enter a half note.

There are now three beats in the measure; press [B] to add another bar line.

Measure 2   Press [↓] twice to move the cursor to the pitch of A; press [·] [2] to enter another dotted half note.

You've reached the end of another measure, but—since you're at the end of a staff—you don't need to enter another bar line. The cursor automatically jumps to the beginning of the next treble staff.

Your composition so far:

Staff #1 — Intro phrase — 1 — 2

RESTS

Rests indicate silence in music. A rest has a duration value, just as a note does.

STAFF #2

Measure 3   To make the soprano voice rest (be silent) for two beats, first press [R] to tell the computer you want to enter a rest. (The word Rest at the bottom of the screen tells you that a rest will be entered next.) Now press [4] to enter a quarter-note rest. Repeat [R] [4] again to enter another rest.

(Notice that you didn't have to first move the cursor anywhere. Rests can be entered anywhere on a staff.)

With the cursor still at A, press [4] to enter a quarter note. Then press [B] to enter another bar line.

Measure 4   Enter three quarter notes: Move the cursor down to F and press [4]; move the cursor up to G and press [4]; move the cursor up again to A and press [4] again. Press [B] to enter a bar line.

TIED NOTES
A tie eliminates the little silence between notes.

Measure 5   The next note is a tied, dotted half note. Press [↓] to move the cursor down to G. Press [/] to tell the computer to tie the next note. Then press [·] to indicate a dot. Finally, press [2] for a half note. (On screen, the G has a tail that tells you it's a tied note.)

Your composition so far:
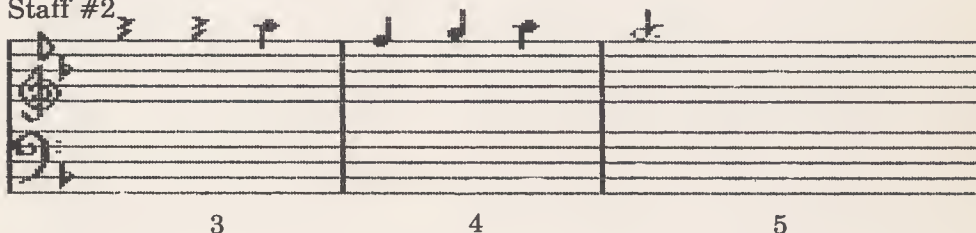
Press [START] to play back and hear the piece so far.

Clearing commands from the computer: If you accidentally press a command such as [·] or [/], clear it from the computer by pressing [CONTROL] and [CLEAR] at the same time.

EMPHASIZING RHYTHM

You've now entered the first five measures of melody using the soprano voice. Instead of continuing with the melody, let's go back and emphasize the rhythm, using the bass voice.

Press [V] until you see Bass at the bottom of the screen. In this arrangement, the bass voice emphasizes the 3/4 time by generally playing only the first beat of each measure.

The bass voice doesn't play during the Intro phrase; it comes in at measure 1. Use [↑] or [↓] to move the cursor to the pitch of F in the bass clef in measure 1, as shown below. Line up the cursor directly below the dotted half note C in the soprano voice. Lining up notes as you enter new voices helps keep the score uncluttered and visually appealing.

Staff #1

Place cursor here before pressing [S]

Place cursor here before pressing [D]

Intro phrase   1   2

Place cursor here before pressing [E]
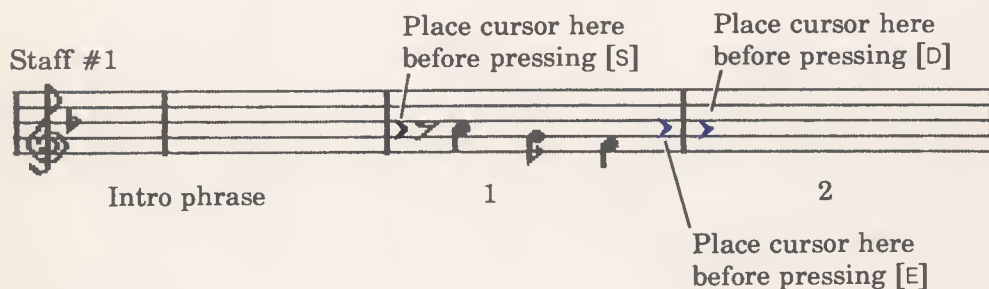
STAFF #1

Measure 1   At F, press [4] to enter a quarter note; then press [R] [4] twice to enter two quarter-note rests.

Measure 2   Move the cursor across the bar line and up to C. Press [4]. Press [R] [4] twice.

STAFF #2

Measure 3   (The cursor should have jumped down to the beginning of the bottom bass clef staff.) Move the cursor down to F. Press [4]. Press [R] [4] twice.

Measure 4   Move the cursor across the bar line and up to A. Press [4]. Press [R] [4] twice.

Measure 5   Move the cursor across the bar line and up to C. Press [4]. Press [R] [4] twice.

Your composition so far:

Staff #1 — Intro phrase — 1 — 2

Staff #2 — 3 — 4 — 5

Press [START] to play the piece from the beginning to hear the melody and rhythm together. It's a good idea to frequently stop and play back a piece while you're composing. This helps you hear how your piece is progressing, or listen for any changes you may wish to make.

Now, let's add harmony, using the tenor voice. Press [V] to select the tenor voice.

SLURS

In this arrangement of "Smokey," the tenor voice has many long, slurred notes. MusicWriter has a special SLUR MODE screen where all notes are automatically tied. This screen is a convenience so you don't have to tie every note.

Hold down [CONTROL] and press [S] to get the SLUR MODE screen.

STEMS

Normally in MusicWriter, the stems for the tenor voice point up. However, in this arrangement, the stems for the tenor voice will look better pointing down, so they won't visually interfere with the alto voice you will enter later.

Press [S] to change the direction of the stems from up to down. The stem direction is indicated by the prompt at the bottom right of the screen.

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ADDING HARMONY

Press [↑] and [→] to move the cursor to the pitch of A in measure 1, as shown below. Line up the cursor directly above the quarter note in the bass part:

STAFF #1

Measure 1   At A, press [·] [2] to enter a tied, dotted half note.

Measure 2   Move the cursor across the bar line and up to B♭. Press [·] [2].

Staff #1

Intro phrase   1   2

STAFF #2

Measure 3   (The cursor should have jumped down to the beginning of the bottom bass clef staff.) Move the cursor down to A. Press [·] [2].

Measure 4   Move the cursor across the bar line and up to C. Press [·] [2].

Measure 5   Change the stem direction again by pressing [S]. Move the cursor across the bar line and down to E. Press [·] [2].

Your composition so far:

Staff #1

Intro phrase   1   2

Staff #2

3   4   5

Exit the SLUR MODE screen and go back to the EDIT MODE screen by pressing [ESC].

RHYTHMIC VARIATIONS

Let's now add some rhythmic variations, using the alto voice. In this arrangement, the alto voice has a lot of eighth notes. This provides interesting contrast to the tenor voice's long, slow notes.

First, press [V] to get the alto voice.

Using [↑] and [←], move the cursor to the pitch of A in measure 1, as shown below. Line up the cursor directly beneath the dotted half note above it:

STAFF #1

Measure 1   The alto part begins with a rest. As you know, rests can be put anywhere on the staff. However, it's best to put rests where there are no notes; this helps to keep the score uncluttered and easy to read.

At A, press [R] [8] to enter an eighth-note rest. Still at A, press [4] to enter a quarter note. Go down to G and press [8] to enter an eighth note. Go down to F and press [4] again.

COPYING PASSAGES

MusicWriter offers the time-saving feature of copying passages from one place in your music to another. Measures 2 and 3 of the alto voice are exactly the same as measure 1, so you can copy the passage instead of manually reentering the notes.

Go to the COPY MODE screen by holding down [CONTROL] and pressing [C]. Follow the prompts at the bottom of the screen as a guide while copying. The first prompt asks what type of copying you want. If WITHIN-VOICE is not highlighted, move the highlighter there with [←] or [→]; press [RETURN] to select it.

Staff #1

Measure 1   Go to the start of what you want to copy: Place the cursor at the beginning of measure 1, pointing directly at the eighth-note rest (at pitch A) which begins the alto part. When the cursor is at the right spot, press [S].

Staff #1   Place cursor here before pressing [S]   Place cursor here before pressing [D]

Intro phrase   1   2

Place cursor here before pressing [E]
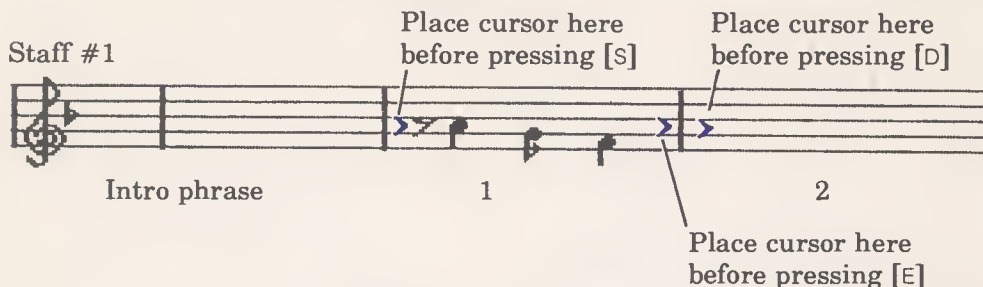
Next, move the cursor to the end of what you want to copy: Keeping the cursor at the pitch of A, move the cursor to the end of measure 1, just before the bar line. When the cursor is in the right spot, press [E].

Measure 2   Finally, move the cursor to where you want the passage to go: Keeping the cursor at A, move the cursor just past the bar line to measure 2.

Press [D] to copy the notes and go back to the EDIT MODE screen.

STAFF #2

Measure 3   Press [CONTROL]-[C] again to go back to the COPY MODE. Then repeat the copy process again to copy measure 2 to measure 3. Then use [→] to move the cursor just past the bar line to measure 4.

Measure 4   Hold down [CONTROL] and press [S] to go to the SLUR MODE screen. With the cursor at A, press [8]. Go down to G and press [8]. Go up to A and press [8]. Go down to F and press [8]. Go up again to A and press [8]. Go up to Bb and press [8].

Press [ESC] to exit the SLUR MODE screen and go back to the EDIT MODE screen.

Measure 5   Move the cursor across the bar line and down to G. Press [R] [8]. Then press [4]. Go down to F and press [8]. Go down to E and press [4].

Your composition so far:

Staff #1

Intro phrase   1   2

Staff #2

3   4   5

Now that all four voices have been entered, press [START] to play back all that you've written. Listen for the blend of melody, harmony, and rhythmic variations.

SCROLLING

Note the Staff prompt at the top right of the screen and the number following it. It should say #2 if the cursor was left at the end of the alto part. To continue on, you must scroll to the next, or third, staff.

To scroll down, hold down [SHIFT] and press [↓]. Staff #1 moves up and off the screen. Staff #2 moves to the top of the screen, and Staff #3 comes up at the bottom. Notice that the cursor remained in the same place when you scrolled; the prompt now says #3 to indicate at which staff the cursor is located. You can scroll up or down through all 70 staffs by holding down [SHIFT] and pressing [↑] or [↓].

To rapidly move the cursor: Hold down [SHIFT] and press [←] or [→] to "jump" the cursor to the beginning or end of any staff you're on.

FINISHING THE PIECE

Since you're now familiar with the basics of entering music with MusicWriter, the rest of the Tutorial uses a shorthand method of indicating which notes, rests, etc., to enter. When a new feature comes up, it will be fully explained.

CONTINUING WITH THE TENOR VOICE

Let's go on with "Smokey" with the tenor voice. Press [V] to get that voice. Move the cursor to the pitch of F, as shown below:

Staff #3

STAFF #3

Measure 6	F [/] [·] [2] — [B]
Measure 7	[↓] to E [/] [·] [2] — [B]
Measure 8	[S] — [↑] to G [4] — [↑] to B♭ [4] — [↑] to C [4]

Staff #3

6   7   8
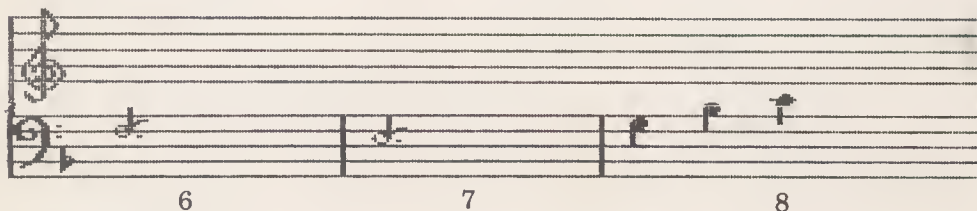
ACCIDENTALS

Accidentals change the pitch of a note. A *sharp* makes the pitch half a step higher; a *flat* makes it half a step lower. A *natural* eliminates a sharp or flat. Just as with ties and dots, accidentals must be entered before the note. To enter an accidental, press [N] to make a note a natural; hold down [SHIFT] and press [#] to make a sharp; press [F] to make a flat. The prompt at the bottom of the screen indicates what the next note will be.

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STAFF #4	Hold down [SHIFT] and press [↓] and [←] to scroll to beginning of staff.
Measure 9	The next note is a B natural: [↓] to B♭ [/] [·] [N] [2] — [B]
Measure 10	[↓] to A [/] [·] [2] — [B]
Measure 11	[↑] to B♭ [N] [4] — [↓] to G [R] [4] — [4]

Staff #4

9   10   11
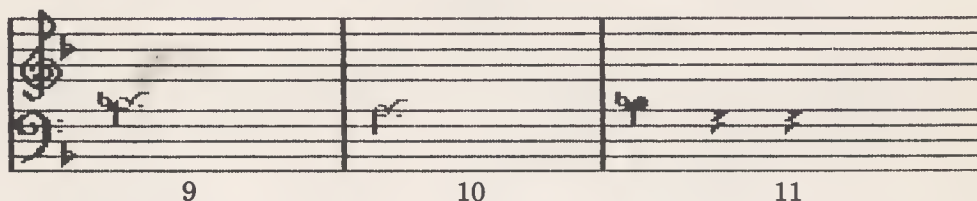
FIRST ENDING

Composers often write more than one ending for their music to add variety. "Smokey" has two endings: Its first ending completes a musical phrase and introduces what's to come; the second ending provides the final flourish to the music.

Measure 12 begins the first ending for "Smokey."

STAFF #5	Hold down [SHIFT] and press [↓] and [←] to scroll to beginning of staff.
Measure 12	Hold down [SHIFT] and press [[] to indicate the first ending. (Note the bracket and number 1 above the staff.) Now enter the notes for the first ending: [↑] to A [/] [·] [2] — [B]
Measure 13	[↓] to E [·] [2] — [B]
Measure 14	[↓] to D [/] [·] [2] — [B]

Staff #5

12   13   14
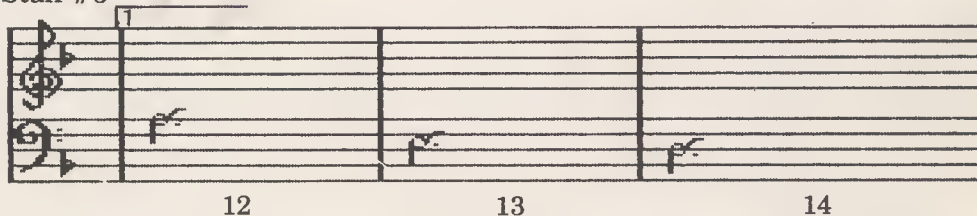
STAFF #6	Hold down [SHIFT] and press [↓] and [←] to scroll to beginning of staff.
Measure 15	[↓] to C [4] — [↑] to A [R] [4] — [↓] to G [4] — [B]
Measure 16	G [4] — [↑] to A [4] — [↓] to F [4]

41
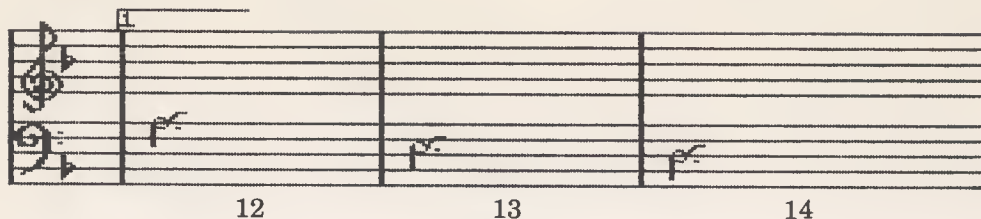
Staff #5

Staff #6
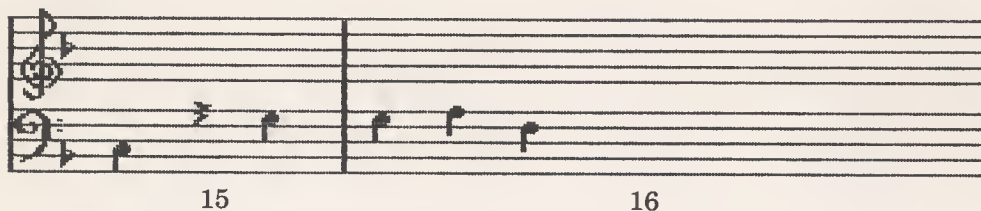
CONTINUING WITH THE SOPRANO VOICE

Now let's go on with "Smokey" by entering more of the other voices. Let's start with the soprano voice. Press [V] to get it.

   Replace error: The bar lines are already in place, so you don't have to enter them. Be sure to move the cursor over a bar line before entering notes in the next measure. If you try to enter a note on a bar line, you'll get a REPLACE ERROR message on the screen. If that happens, just move the cursor across the bar line and enter the note. You also get this message if you try to enter two notes in the same voice directly above or below one another.

   Hold down [SHIFT] and press [↑] and [←] to scroll to the beginning of Staff #3. Place the cursor at G in measure 6, as shown below:

Staff #3

STAFF #3

Measure 6	G [/] [·] [2]
Measure 7	G [4] — [↓] to F [R] [4] — [↓] to C [4]
Measure 8	C [4] — [↑] to E [4] — [↑] to G [4]

Staff #3

6   7   8
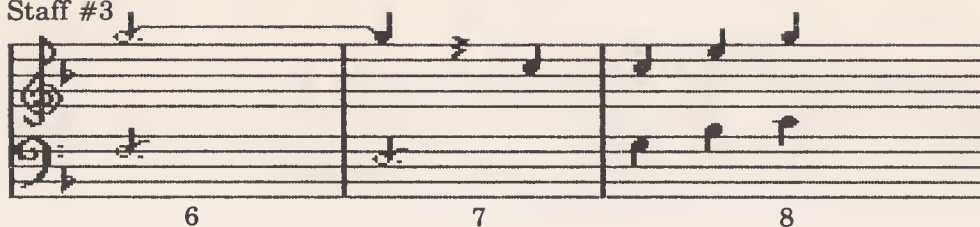
STAFF #4   Hold down [SHIFT] and press [↓] and [←] to scroll to beginning of staff.

Measure 9   G [·] [2]

Measure 10   [↓] to D [/] [·] [2]

Measure 11   D [4] — [R] [4] — [↑] to E [4]

Staff #4

9   10   11
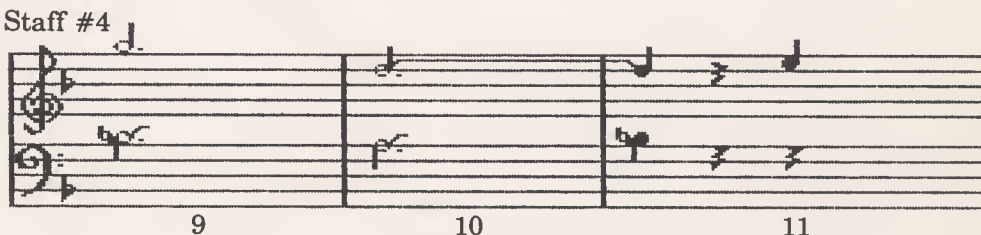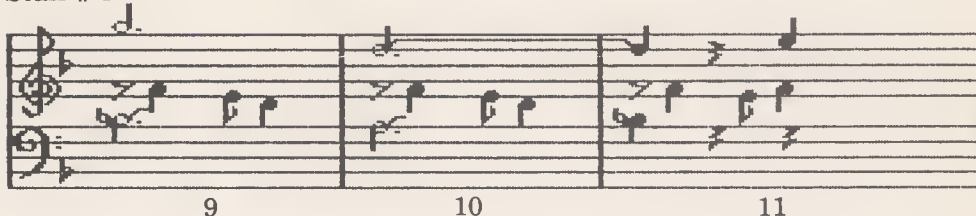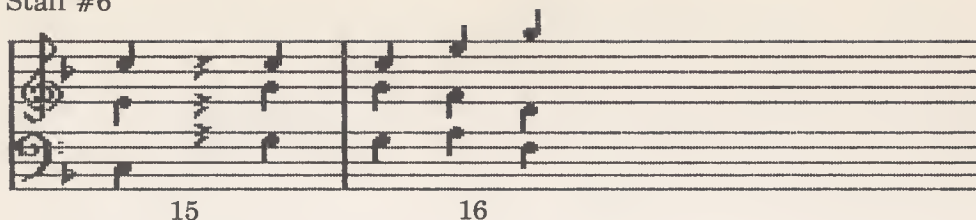
STAFF #5   Hold down [SHIFT] and press [↓] and [←] to scroll to beginning of staff.

Measure 12   [↑] to F [4] — [↓] to E [4] — [↓] to D [4]

Measure 13   [↓] to C [/] [·] [2]

Measure 14   C [/] [·] [2]

Staff #5

12   13   14

43

STAFF #6   Hold down [SHIFT] and press [↓] and [←] to scroll to beginning of staff.

Measure 15   C [4] — [R] [4] — C [4]

Measure 16   C [4] — [↑] to E [4] — [↑] to G [4]

Staff #6

15   16
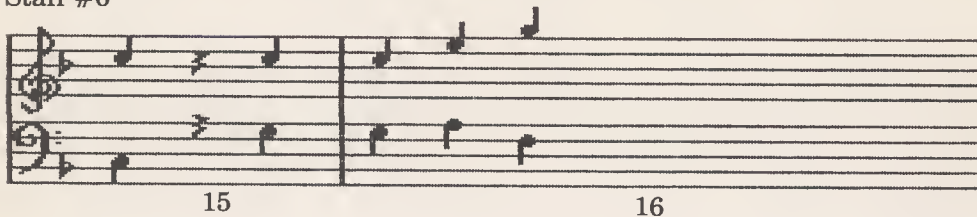
CONTINUING WITH THE ALTO VOICE

Press [V] to get the alto voice.

Hold down [SHIFT] and press [↑] and [←] to scroll to the beginning of Staff #3. Place the cursor at G in measure 6, as shown below:

Staff #3

6   7   8
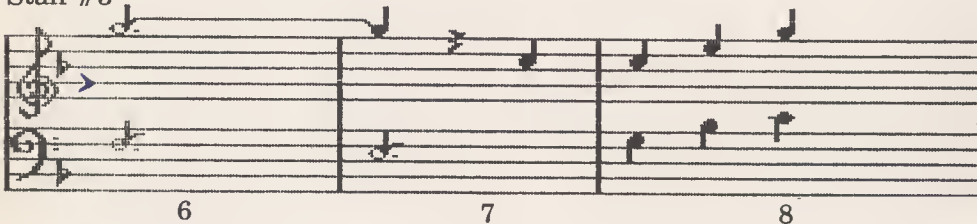
STAFF #3

Measure 6   At G [R] [8] [4] — [↓] to F [8] — [↓] to E [4]

Measure 7   [↑] to G [R] [8] [4] — [↓] to F [8] — [↓] to E [4]

Measure 8   E [4] — [↑] to G [4] — [↑] to B♭ [4]

Staff #3

6   7   8

STAFF #4   Hold down [SHIFT] and press [↓] and [←] to scroll to beginning of staff.

Measure 9   [↓] to F [R] [8] [4] — [↓] to E [8] — [↓] to D [4]

Measures 10 and 11   These measures are exact copies of measure 9. Use the COPY MODE screen to duplicate measure 9. (For a review of how to copy passages, see page 35.)

Staff #4

STAFF #5   Hold down [SHIFT] and press [↓] and [←] to scroll to beginning of staff.

Measure 12   Hold down [CONTROL] and press [S] to slur all notes. At F [8] — [↓] to E [8] — [↑] to F [8] — [↓] to E [8] — [↑] to F [8] — [↑] to G [8]. Press [ESC] to turn off SLUR MODE screen.

Measure 13   [↓] to C [8] — [↑] to D [4] — [↑] to E [4] — [↓] to C [8]

Measure 14   [↑] to F [8] — [↑] to G [4] — [↑] to A [4] — [↓] to F [8]

Staff #5

STAFF #6   Hold down [SHIFT] and press [↓] and [←] to scroll to beginning of staff.

Measure 15   [↓] to E [4] — [↑] to F [R] [4] — [↑] to G [4]

**Measure 16**   G [4] — [↓] to F [4] — [↓] to D [4]

Staff #6

15   16

CONTINUING WITH THE BASS VOICE

Press [V] to get the bass voice.

Hold down [SHIFT] and press [↑] and [←] to scroll to the beginning of Staff #3. Place the cursor at G in measure 6, as shown below:

Staff #3

6   7   8

STAFF #3

Measure 6   At G [4] — [↑] to C [R] [4] — [R] [4]

Measure 7   [↓] to C [4] — [↑] to C [R] [4] — [R] [4]

Measure 8   C [4] — [↓] to G [R] [4] — [R] [4]

Staff #3

6   7   8

STAFF #4   Hold down [SHIFT] and press [↓] and [←] to scroll to beginning of staff.

Measure 9   G [4] — [↑] to B♭ [R] [4] — [R] [4]

Measure 10   [↓] to C [4] — [↑] to B♭ [R] [4] — [R] [4]
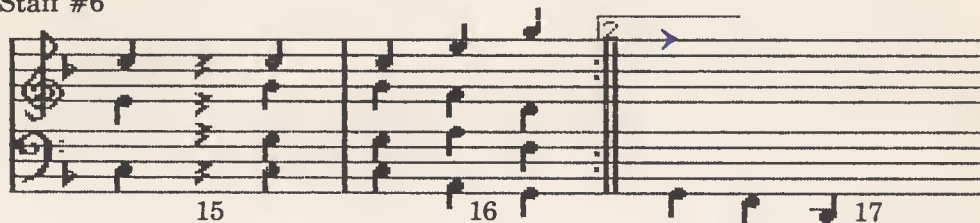
Measure 11   [↑] to D [4] — [↓] to G [R] [4] — [R] [4]

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Staff #4

STAFF #5   Hold down [SHIFT] and press [↓] and [←] to scroll to beginning of staff.

Measure 12   G [4] — [↑] to A [4] — [↑] to Bb [N] [4]

Measure 13   [↑] to C [4] — [↓] to G [R] [4] — [R] [4]

Measure 14   G [4] — [R] [4] — [R] [4]

Staff #5

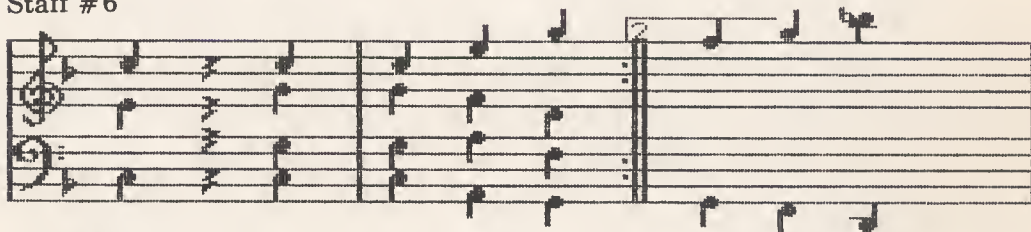**STAFF #6**   Hold down [SHIFT] and press [↓] and [←] to scroll to beginning of staff.

Measure 15   [↑] to C [4] — [R] [4] — [4]

Measure 16   C [4] — [↓] to A [4] — [↓] to G [4]

Staff #6
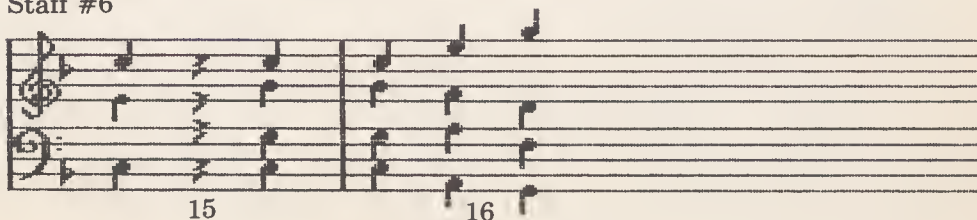
The first ending is now complete. Press [START] to hear what you've written so far. Now we're ready for the second ending. Let's continue on with the bass voice.

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SECOND ENDING

STAFF #6   Move the cursor to the end of measure 16, as shown below:

Staff #6
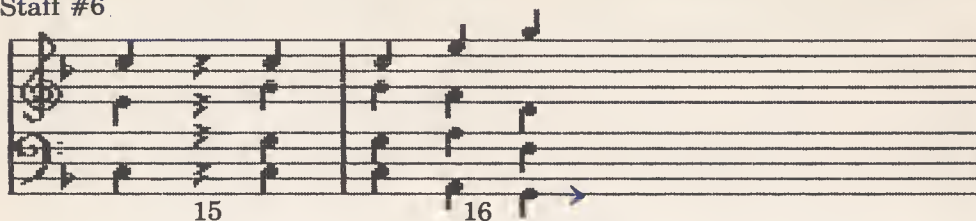
Measure 17   Hold down [SHIFT] and press []] to indicate the second ending. Note the bracket and the number 2 above the staff. (Also note the repeat dots to the left of the bracket, to be discussed later.)
Now enter the notes: At G [4] — [↓] to F [4] — [↓] to D [4]
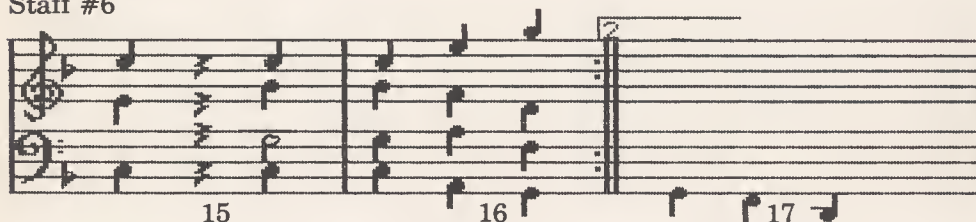
Staff #6

STAFF #7   Hold down [SHIFT] and press [↓] and [←] to scroll to beginning of staff.

Measure 18   [↓] to C [4] — [↑] G [R] [4] — [R] [4] — [B]

Measure 19   [↓] to C [4] — [↑] G [R] [4] — [R] [4] — [B]

Measure 20   [↓] to C [4] — [↑] to G [R] [4] — [R] [4] — [B]
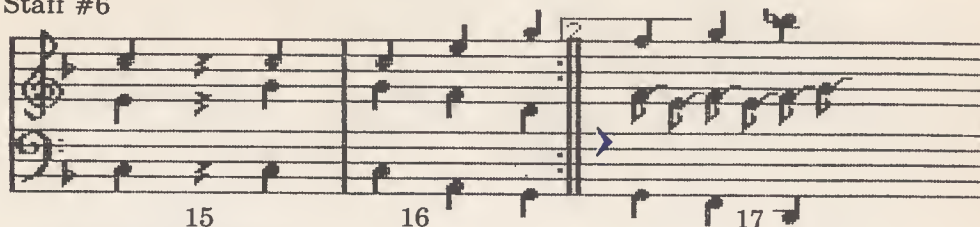
Measure 21   [↓] to C [4]

Staff #7

48
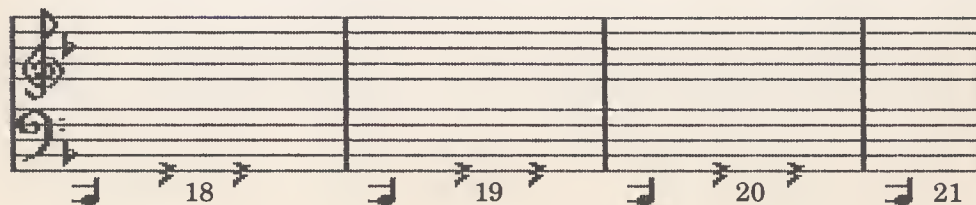
The bass part for the second ending is now complete. Let's enter the soprano part next. Press [V] to get the soprano voice.

Hold down [SHIFT] and press [↑] and [←] to scroll to the beginning of Staff #6. Place the cursor at F in measure 17, as shown below:

Staff #6

STAFF #6 (SOPRANO)

Measure 17	At F [4] — [↑] to G [4] — [↑] to B♭ [N] [4]
STAFF #7	Hold down [SHIFT] and press [↓] and [←] to scroll to beginning of staff.
Measure 18	[↑] to C [/] [·] [2]
Measure 19	C [/] [·] [2]
Measure 20	C [4]
Measure 21	[↓] to C [4]

Staff #6

Staff #7

The soprano part for the second ending is now complete. Let's enter the alto part next. Press [V] to get the alto voice.

Hold down [SHIFT] and press [↑] and [←] to scroll to the beginning of Staff #6. Move the cursor over to measure 17.

STAFF #6 (ALTO)

Measure 17   This measure is an exact copy of measure 12. Move to the first note in the alto part in measure 12 and use the COPY MODE screen to copy the notes from measure 12 and enter them in measure 17. (For a review of copying passages, see page 35.)

STAFF #7   Hold down [SHIFT] and press [↓] and [←] to scroll to beginning of staff.

Measure 18   G [8] — [↑] to A [4] — [↓] to G [4] [8]

Measure 19   [↑] to A [8] — [↑] to Bb [N] [4] — [↓] to A [4] — [↑] to D [8]

Measure 20   [↓] to C [4]

Measure 21   C [4]

Staff #6

Staff #7

50
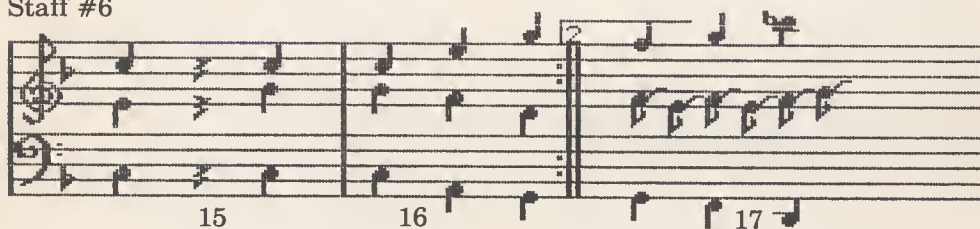
The alto part for the second ending is now complete. Let's go on to finish the tenor part. Press [V] to get the tenor voice.

Hold down [SHIFT] and press [↑] and [←] to scroll to the beginning of Staff #6. Place the cursor at G in measure 17, as shown below:

Staff #6

STAFF #6 (TENOR)

Measure 17	At G [R] [·] [2]
STAFF #7	Hold down [SHIFT] and press [↓] and [←] to scroll to beginning of staff.
Measure 18	[S] (Stem down) [↓] to E [8] — [↑] to F [4] — [↓] to E [4] [8]
Measure 19	[↑] to F [8] — [↑] to G [4] — [↓] to F [4] — [↑] to B♭ [N] [8]
Measure 20	[↑] to C [4]
Measure 21	[↓] to C [4]

Staff #7

The second ending for all voices is now complete.

REPEATS

One way to extend a passage of music is to play it more than once, or to repeat it. As previously mentioned, different endings add variety to a piece of music so that each time a passage plays, it finishes in a different way.

Note the two little dots to the left of the double bar line at the end of measure 16. These dots tell the computer to repeat some music. We must now tell the computer what to repeat—in this case measures 1 through 11.

Hold down [CONTROL] and press [↑] to scroll to Staff #1.

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STAFF #1

Measure 1 Press [→] to move the cursor to the bar line separating the Intro phrase and measure 1. Press [Spacebar] to erase the bar line. Press [←] to move back one space. Hold down [SHIFT] and press [(] to enter another set of repeat dots. These dots mark the beginning of the music to be repeated.

Press [START] to hear the finished arrangement of "On Top of Old Smokey." With the repeat, you hear all 32 measures of music, even though you entered only 21 measures. When the music repeats, 11 measures (measures 1 to 11) are added between the first and second endings.

On Top of Old Smokey

Staff #1

Intro phrase   1   2

Staff #2

3   4   5

Staff #3

6   7   8

Staff #4

Staff #5

Staff #6

Staff #7

OTHER POSSIBILITIES

Going step-by-step through this arrangement of "On Top of Old Smokey" introduced you to many—but by no means all—of MusicWriter's features. You can, for example, change tempo or articulation; you can add dynamics to different voices.

Each feature of MusicWriter is explained in the MusicWriter's Functions section of this manual. To continue exploring MusicWriter, you may want to read that section. Or maybe you'd rather experiment with "Smokey" by changing it to see how it sounds. You can also experiment with a favorite song by trying different arrangements. Or you can jump right in and compose some music of your own.

Music Fundamentals

This section gives a brief overview of some music fundamentals, and explains how to use MusicWriter to write music. These are the fundamentals of music which are reviewed:

- Sound, or pitch
- Notes and rests
- Measures
- Tempo
- Melody, harmony, and rhythm

To practice these music basics, and to familiarize yourself with the program, load MusicWriter into your computer (see page 00 for instructions) so that you can follow along with the manual.

After the program is loaded, the first screen displays the main menu screen. This menu leads to all of MusicWriter's functions. For now, use [↑] or [↓] to highlight NEW PIECE on the menu. You choose NEW PIECE to start a new piece of music.

The first on-screen prompt says:

MUSIC MEMORY WILL BE ERASED
OK TO PROCEED?   (Y/N)

Since you're just getting started, no music is in the computer's memory, so go ahead and press [Y]. This takes you to the KEY SELECTION screen. Make sure that the first key—the key of C—is highlighted and press [RETURN] to select it. (If it's not, use [↑] or [↓] to move the highlighter to C.)

Pressing [RETURN] selects the key of C and takes you to the EDIT MODE screen.

This screen shows two grand staffs, where you write your music. Staff #1 is at the top; Staff #2 is below it. MusicWriter has 70 grand staffs in all. Each line and space on a staff represents a different sound, or pitch, going from the lowest to the highest—or vice versa. Each pitch has a letter name, shown below on the diagram.
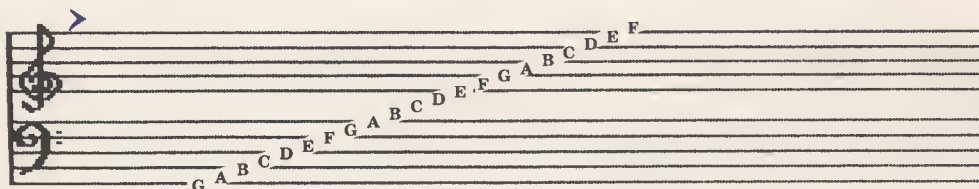
The cursor (➤) is located at the top left of the screen. It moves around on the staffs with the arrow keys—[↑] [↓], [←], and [→]. Also at the top of the screen is the Pitch prompt, followed by the letter name of the pitch where the cursor is located.

Move the cursor up and down the staffs with [↑] and [↓]. Notice that as the cursor moves, the pitch prompt changes.

To hear the pitch where the cursor is located, press [P].

NOTES

MusicWriter uses six basic notes, shown below. With the cursor and the computer keyboard, you place notes on the staffs to compose music.

Note		Key to Press
Whole note	o	[1]
Half note	♩	[2]
Quarter note	♩	[4]
Eighth note	♪	[8]
Sixteenth note	♬	[6]
Thirty-second note	♬	[3]

Note length: Each note has a certain length, or value in time. Another way of saying this is that each note gets a certain number of beats, or counts. For example, consider the beat of your heart when you're sitting resting in a chair. A quarter note is one beat. A half note is two beats; it's twice as long as a quarter note. A whole note is four beats; it's four times as long as a quarter note. An eighth note is only half a beat; it's half as long as a quarter note. Sixteenth and

thirty-second notes are further subdivisions of quarter notes.

Move the cursor to the pitch of F, as shown below.
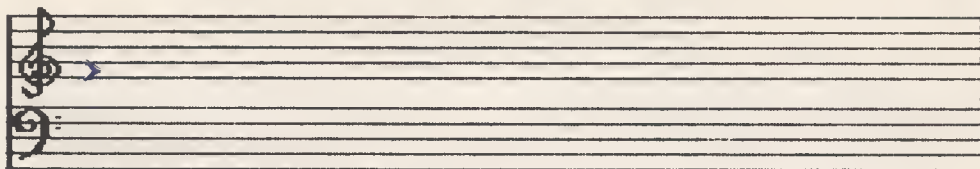
Enter two quarter notes by pressing [4] twice, and one half note by pressing [2]. Then repeat this—press [4], [4], and [2] again. (If you make a mistake, move the cursor back to point its tip directly at the note and press [Spacebar] to erase the note. Then move the cursor again and enter the correct note.)

Press [START] to play back the notes. As you can hear, a half note is twice as long as a quarter note.

MEASURES

Music is divided into regular units of time, called measures. Each measure in a piece of music contains the same number of beats, or counts. In many pieces of music, the measures have four beats, with each quarter note getting a beat. A measure with four beats can be made up of the following notes:

1	whole note	= 1 measure
2	half notes	= 1 measure
4	quarter notes	= 1 measure
8	eighth notes	= 1 measure

As you can see, the whole note gets four beats—it would fill a whole measure. Each eighth note gets only half a beat—it takes eight of them to fill a measure.

Many different combinations of notes can fill a four-beat measure, as long as the total count is four. For example, a four-beat measure can be made up of one half note, one quarter note, and two eighth notes.

Bar lines: Bar lines divide music into measures. To put a bar line on the screen, you press [B].

To practice writing four-beat measures with different combinations of notes, enter the following three measures. To start fresh, however, erase the first six notes you previously entered: Press [Spacebar] to point the cursor at each note and erase it. Then press [←] to move the cursor back to the beginning of the staff. Enter these notes:

Measure 1   Press [4] four times to enter four quarter notes. Press [B] for a bar line.

Measure 2   Press [2] once to enter a half note; press [8] four times to enter four eighth notes. Press [B] for another bar line.

Measure 3   Press [1] once to enter a whole note.
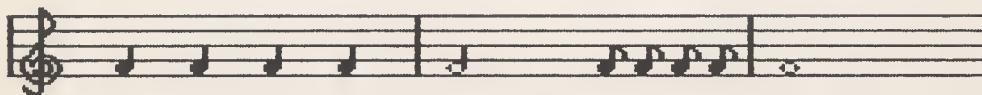
Press [START] to play back the notes. Follow the four beats in each measure.

This example illustrates a very common form, in which each measure contains four beats and a quarter note is one beat. Many other kinds of measures are possible, however. For example, a composer might decide to give three beats to each measure, with each quarter note getting a beat. Or the music could be written so that each measure has six beats, with each eighth note getting a beat.
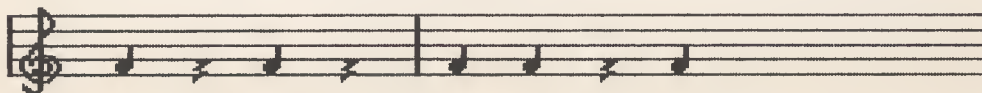
RESTS

Music contains silence as well as sound. The silences, called rests, have time value, just as notes do. To put a rest between notes, you press [R] and then its value. To enter a quarter-note rest, for example, you press [R] and then [4].

To hear what rests sound like in music, enter the following two measures:

(To start fresh, first press [↑] to move the cursor up to point at the first note. Press [Spacebar] to erase the notes and bar lines. Press [←] to move the cursor back to the beginning of the staff.)
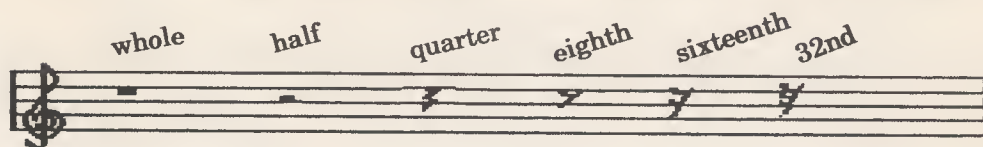
Measure 1   Press [4] to enter a quarter note. Press [R] [4] to enter a quarter-note rest. Press [4]; press [R] [4]. Press [B] for a bar line.

Measure 2   Press [4] twice. Press [R] [4]. Press [4].

Press [START] to hear what the notes and rests sound like together.

The diagram below shows what some other rests look like on the screen:

TEMPO

Tempo is the term for how fast or slow a piece of music plays. The beats can be fast or slow—just as your heart beats faster when you run up a flight of stairs than when you're walking at a leisurely pace. Whether the tempo is fast or slow, however, the lengths of the notes and rests stay the same in relation to each other. If there are four beats per measure—whatever the tempo—a whole note gets four beats and a quarter note gets one beat.

To experiment with different tempos, you can press [F] (fast) or [S] (slow) when the music is playing.

MELODY, HARMONY, AND RHYTHM

MusicWriter offers four voices for composing music: soprano, alto, tenor, and bass. Generally, notes in the soprano and alto voice go on the top, or treble, staff; the soprano voice is usually for higher pitches and the alto for lower ones. Notes for the tenor and bass generally go on the bottom, or bass, staff; the tenor voice is usually for higher pitches and the bass for lower ones.

To cycle through all four voices, press [V]. Notice that the names of the voices appear next to the Voice prompt at the bottom of the screen.

So far, you've written notes for only one voice. Music is often a blend of voices that create melody, harmony, and rhythm.

Melody: When someone asks, "Do you know the tune?" they usually mean "Do you know the melody?" The melody is generally the most distinctive voice in music—it may play the loudest, be pitched the highest, and so on. The soprano voice often carries the melody.

Harmony: Harmony consists of notes that blend with the melody to fill out the overall sound. Harmony parts are often pitched lower than the melody.

Rhythm: The bass voice often emphasizes the rhythm, or beat, of a piece of music. The bass voice is almost always the lowest pitched of the four voices.

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In the following three measures, the soprano voice has the melody part; the alto and tenor voices provide harmony, and the bass emphasizes the rhythm. To hear how the four voices sound together, enter the notes in the sample composition below.

(To start fresh, press [↑] to move the cursor up to point at the first note. Press [Spacebar] to erase the notes, rests, and bar lines you entered previously. Press [←] to move the cursor back to the beginning of the staff.)

Make sure the Voice prompt says Soprano. (If it doesn't, press [V] until it does.) Press [↑] to move the cursor up to the pitch of C as shown below:



MELODY (SOPRANO VOICE)

Measure 1 At C, press [4]. Press [↑] to go up to E; press [4]. Press [↑] to go up to G; press [2]. Press [B] for a bar line.

Measure 2 Press [↑] to go up to A; press [8]. Press [↓] to go down to G; press [8]. Press [↓] to go down to F; press [8]. Press [↓] to go down to E; press [8]. Press [↓] to go down to D; press [4]. Press [↓] to go down to B; press [4]. Press [B] for a bar line.

Measure 3 Press [↑] to go up to C; press [1].

      Press [START] to hear the melody.

Staff #1
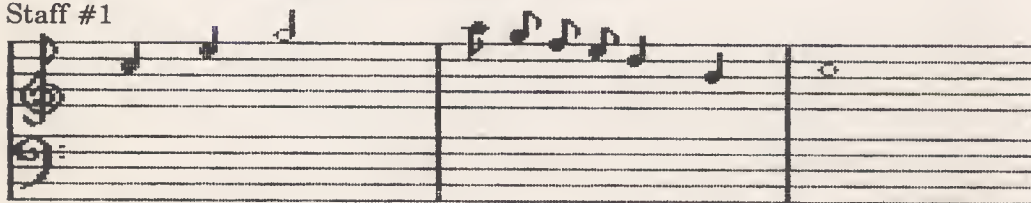
HARMONY (ALTO VOICE)

Measure 1 Press [V] to change the voice to alto.

      Use the arrow keys to move the cursor to G on Staff #1.
      Line up its tip with the quarter note above, as shown below:

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At G, press [8]. Press [↓] to go down to F; press [8]. Press [↓] to go down to E; press [8]. Press [↓] to go down to D; press [8]. Press [↓] to go down to C; press [8]. Press [↑] to go up to B; press [8]. Press [↓] to go down to A; press [8]. Press [↓] to go down to G; press [8].
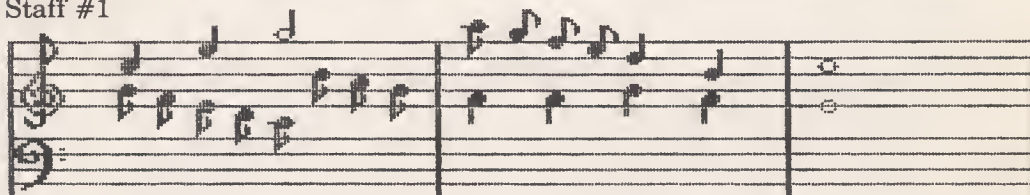
Measure 2   Press [→] to move the cursor across the bar line, lining it up with the eighth note above. Press [↓] to go down to F; press [4] twice. Press [↑] to go up to G; press [4]. Press [↓] to go down to F; press [4].

Measure 3   Press [→] to move the cursor across the bar line, lining it up with the whole note above. Press [↓] to go down to E; press [1].

Press [START] to hear the soprano and alto voices together.

Staff #1

MORE HARMONY (TENOR VOICE)

Measure 1   Press [V] to change the voice to tenor.

Use the arrow keys to move the cursor up to E on the bass clef of Staff #1, as shown below:
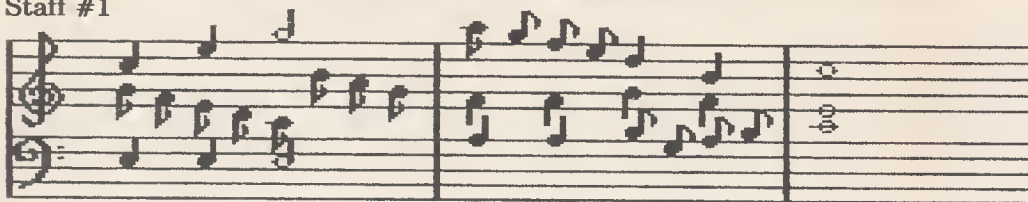

At E; press [4] twice, then press [2].

Measure 2   Press [→] to move the cursor across the bar line, lining it up with the two notes above. Press [↑] to move the cursor up to A; press [4] twice. Press [↑] to move the cursor up to B; press [8]. Press [↓] to move the cursor down to G; press [8]. Press [↑] to move the cursor up to A; press [8]. Press [↑] to move the cursor up to B; press [8].

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Measure 3   Press [→] to move the cursor across the bar line. Press [↑] to move the cursor up to C; press [1].
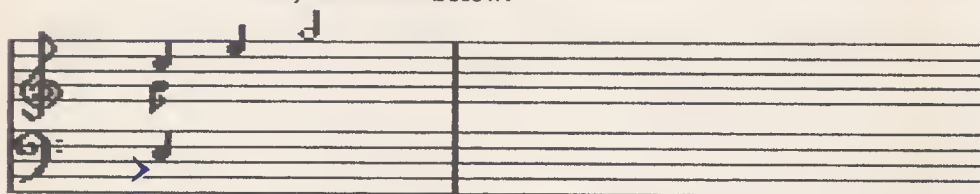
Press [START] to hear the blend of melody and harmony.

Staff #1

RHYTHM (BASS VOICE)

Measure 1   Press [V] to change the voice to bass.

Use the arrow keys to move the cursor to C on the bass clef staff, as shown below:

Measure 2   Press [→] to move the cursor across the bar line, lining it up with the three notes above. Press [↑] to go up to D; press [4] twice. Press [↓] to go down to G; press [4] twice.

Measure 3   Press [→] to move the cursor across the bar line, lining it up with the whole note above. Press [↑] to go up to C; press [1].

Press [START] to play the music and hear the blend of melody, harmony, and rhythm.

This section very briefly described just a few of the fundamentals of music and how to use MusicWriter to compose music. To further explore composing music, turn to the Tutorial, beginning on page 29. If you want a straightforward description of all of MusicWriter's features, turn to MusicWriter's Functions, beginning on page 5 .

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Advanced Techniques

After you become familiar with MusicWriter, and are comfortable using the program, you may want to explore some of the more technical considerations of composing music with a computer.

TIMING

MusicWriter is like a computer language—or a vast list of instructions from the user to the computer. For example, when you press [4], you tell the computer to execute a great many internal commands which lead, finally, to the creation of a quarter note on the screen. As you've seen, the computer does this very quickly. However, its speed does have limits.

There is a limit on the number of commands a computer can carry out in a given time period. Specifically, in PLAY MODE of MusicWriter, the computer performs two major tasks: sounding notes and displaying graphics. Of the two tasks, graphics display takes more time.

Music is very dependent on timing, and you'll want to write your music so that the computer interferes as little as possible with the timing in your compositon. You should therefore keep these important considerations in mind when you're composing the last measure on a staff:

- This isn't a fixed rule, but if you're having timing problems, you may want to place repeats, endings, and key signatures at the beginning of a new staff, rather than at the end of a staff.
- If possible, you should avoid placing a fast note as the last entry on a staff. In addition, if your piece has a fast tempo, you may want to use half, rather than full, scrolling. As the music plays, scrolling the staffs requires a good deal of time in computer terms. While the last note on a staff is playing, the computer is executing the instructions to bring on the new staff. If the piece has a fast tempo, and the last note before the scroll is also fast, the computer may not have time to execute all the graphics commands needed

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to bring on the next staff. This can cause a delay in the timing of the music. Of course, the delay is only a split second, but music is very unforgiving when it comes to timing.

- The computer generates its own special bar line at the end of a staff, so there's no need to enter your own bar line to close off the last measure in a staff. In fact, if you do, it can cause timing problems. Since all voices in a measure must finish playing before the computer goes on to the next measure, an extra bar line at the end of a staff causes a delay. With the extra bar line, graphics commands (scrolling) can't begin to execute until all notes have finished playing.

- Bar lines mark the end of a measure, where all voices and the computer must come together, or synchronize. The computer-generated bar line at the end of a staff doesn't, however, synchronize all the voices. It's therefore essential that all voices have the same number of beats in the last measure on a staff.

- This isn't a fixed rule, but if you're having timing problems, you may want to place repeats, endings, and key signatures at the beginning of a new staff, rather than at the end of a staff.

NOTE PLACEMENT

Music should not only sound good, it should look good as well. Although Music-Writer's cursor moves automatically to the right in proportion to the time value of the note entered, you can place the cursor anywhere you want on a staff. Here are some tips for making your music visually more attractive:

- Whenever notes play simultaneously, it's a good idea to line them up vertically. This is particularly important if you want to print out a score of your music to play from.

- You can squeeze notes together or spread them out as needed to make the score uncluttered and easy to read.

- Stem direction can be changed as needed to increase visual clarity.

- Rests can be placed where they don't interfere with the notes of the other voices.